

REMARKS

The Office Action mailed September 25, 2007, has been carefully reviewed and the following remarks are submitted in response thereto. Claims 1-22 are pending in the application.

The rejection of claims 1-7, 10-13, and 16-20 under 35 USC 102(e) as being anticipated by Rawlins is respectfully traversed. The present invention uses network transport management methods which are modified and adapted for a system that provides compositional services based on virtual processing elements gathered into sets by an aggregator that links the elements together in a network traffic path. Each virtual processing element has a capacity allocable according to a respective communication transfer rate based on a sustainable data flow rate to complete respective data processing transactions. In contrast, Rawlins discloses traffic routers using virtual resource pools within the routers in determining admission control based on the QoS class of each traffic request and the available bandwidth in the router. Rawlins does not disclose any compositional services composed of data processing functions assembled and linked using virtual processing elements with their capacity allocated according to a respective communication transfer rate based on a sustainable data flow rate to complete respective data processing transactions.

Regarding claim 1, the recited method includes interconnecting a plurality of physical processing components within the network for providing a plurality of virtual processing elements that are accessible by respective network traffic paths to perform a respective processing operation. A pool of the virtual processing elements is represented using a resource aggregator, each virtual processing element having a capacity allocable according to a respective communication transfer rate based on a sustainable data flow rate to complete respective data processing transactions. A reservation request for utilizing specified processing resources is received. The resource aggregator exclusively reserves at least one virtual processing element for providing capacity to satisfy the reservation request

in response to the respective communication transfer rate. Use of a respective network traffic path is then allocated to service the reservation request in response to the identified virtual processing element.

Rawlins fails to disclose the interconnection of a plurality of physical processing components to perform a respective processing operation. Instead of linking resources to perform a processing operation, Rawlins operates nodes within communication networks to provide enhanced quality of service (QoS) to selected traffic flows within a network. The network architecture of Rawlins is directed to providing minimum bandwidth for certain traffic flows (col. 2, lines 4-23). The transmitter of a particular packet flow chooses the level of service delivery for the packets (col. 2, lines 33-41, and col.8, line 64 to col. 9, line 7). Thus, Rawlins lacks the teaching of any virtual processing elements that are allocable according to a respective communication transfer rate based on a sustainable data flow rate to complete respective data processing transactions.

Since Rawlins does not teach every aspect of claim 1, it fails to anticipate claim 1. Therefore, the rejection should be withdrawn.

Claim 2 specifies that there are multiple component types for performing respective processing operations. The rejection cites various portions of Rawlins wherein different types of routers or other hardware is discussed. However, there is no disclosure in Rawlins of virtual processing elements allocable for respective data processing transactions that are interconnected by a network path to perform a respective processing operation. The different elements relied on in the Office Action merely pass traffic between a source and a destination. Since Rawlins fails to show either processing operations that provide data processing transactions or the assemblage of different types of processing operations to compose a service, claim 2 is allowable over Rawlins.

Claim 3 recites that composite resource sets are combined and represented in the pool (i.e., prior to a reservation request). Rawlins fails to teach either the composite resource sets comprised of combined processing operations or the pooling of such sets prior to a user request. Claim 4 recites that predetermined interactions integrate the

processing operations into a service function. Rawlins lacks any disclosure of a service function being assembled from processing operations that provide data processing transactions. Therefore, claims 3 and 4 are likewise allowable.

Dependent claims 5-7 recite additional features not present in Rawlins and all are allowable for the same reasons as discussed above.

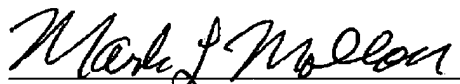
Regarding claim 10 and its dependent claims 11-13, the recited construction of service resource sets comprised of a combination of virtual network elements is neither shown nor suggested by Rawlins. Thus, claims 10-13 are likewise allowable.

Claims 16-20 recite at least some of the same limitations as discussed above and are all allowable for the same reasons.

The rejection of claims 8, 9, 14, 15, 21, and 22 under 35 USC 103(a) as being unpatentable over Rawlins in view of Wright is respectfully traversed. Wright fails to correct for the deficiencies of Rawlins noted above. Therefore, dependent claims 8, 9, 14, 15, 21, and 22 are allowable over the cited references.

In view of the foregoing remarks, claims 1-22 are now in condition for allowance. Favorable action is respectfully solicited.

Respectfully submitted,



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